

Claims

1. A composition comprising one or more hydrogel-forming hydrophilic homopolymers or heteropolymers and one or more amphiphilic block-copolymers comprising hydrophobic polymer blocks being incompatible and hydrophilic polymer blocks being compatible with the hydrogel-forming hydrophilic homopolymers or heteropolymers.
2. A pressure sensitive adhesive composition comprising the composition as claimed in claim 1 wherein the hydrophilic homopolymer or heteropolymer is selected from polymers having intrinsic adhesive properties, or the composition contain a tackyfier or a plasticizer providing or improving the adhesive properties of the compostion.
3. The composition as claimed in claim 2 wherein the hydrophilic homopolymer or heteropolymer is selected from polymers having intrinsic adhesive properties.
4. The composition as claim 3 wherein the hydrophilic homopolymer or heteropolymer is a polymethylvinylether.
5. The composition as claimed in claim 2 wherein the the composition contain a tackyfier or a plasticizer providing or improving the adhesive properties of the compostion.
6. The composition according to any of claims claim 1-2 wherein the hydrophilic homopolymer or heteropolymer is poly-vinylpyrrolidone or copolymer containing vinylpyrrolidone monomer, preferably the hydrophilic homopolymer is poly-vinylpyrrolidone.
7. The composition according to any of claims 1-6 comprising a plasticizer for the hydrophilic homopolymer or heteropolymer.

8. The composition as claimed in claim 7 wherein the plasticizer is selected from the group consisting of polyethylene glycols, suitable PEG 400, and water.
9. The composition according to any of claims 1-8 wherein the hydrophobic block(s) of the amphiphilic block copolymer has a molecular weight of at least 1000, preferably between 1000 and 500.000, more preferred between 1000 and 300.000, more preferred between 1000 and 100.000, or most preferred between 1000 and 50.000.
10. The composition according to any of claims 1-9 wherein the hydrophilic block(s) of the amphiphilic block copolymer has a molecular weight of at least 1000, preferably between 1000 and 300.000, more preferred between 50.000 and 300.000.
11. The composition according to any of claims 1-10, characterized in that the amphiphilic block copolymer is a triblock copolymer having the formula ABA, a diblock copolymer of formula AB, or a multi block or three or multi arm star-shaped copolymer structure, containing A and B blocks.
12. The composition according to any of claims 1-2, 9 and 11, characterized in that the hydrophobic block(s) of the amphiphilic block copolymer comprises polymerised styrene.
13. The composition according to claim 12 wherein the hydrophobic block(s) of the amphiphilic block copolymer consists essentially of polymerised styrene.
14. The composition according to any of claims 1-2, 9 and 11, characterized in that the hydrophobic block(s) of the amphiphilic block copolymer comprises polymerised hydrophobic (meth)acrylic ester.
15. The composition according to claim 14 wherein the hydrophobic block(s) consists essentially of polymerised (meth)acrylic ester.

16. The composition according to any of claims 1-2, 9 and 11, characterized in that the hydrophobic block(s) of the amphiphilic block copolymer comprises polymerised vinylic unsaturated aliphatic hydrocarbon comprising from 1 to 6
5 carbon atoms.
17. The composition according to claim 16, characterized in that the vinylic unsaturated hydrocarbon comprises 4 carbon atoms
- 10 18. The composition according to claims 1-2, 9 and 11-15 wherein the amphiphilic block copolymer comprises at least two hydrophobic blocks, one of the hydrophobic block(s) consisting essentially of polymerised styrene and another hydrophobic block consisting essentially of polymerised (meth)acrylic acid ester.
- 15 19. The composition according to any of claims 1-2 and 10 –11, characterized in that the hydrophilic block(s) of the amphiphilic block copolymer comprises polymerised monomers selected from ethylenically unsaturated monocarboxylic and dicarboxylic acid monomers , such as acrylic acid, methacrylic acid, itaconic acid, maleic acid and fumaric acid; and monoalkyl esters of dicarboxylic acids and their N-substituted derivatives (amides), amides of unsaturated carboxylic acids, such as acrylamide, methacrylamide, N-methoxyacrylamide, acrylamide or methacrylamide, and N-alkylacrylamides; ethylenic monomers containing a sulphonic acid group and ammonium or alkali metal salts thereof, amides of vinylamine and unsaturated ethylenic monomers containing a secondary, tertiary or quaternary amino group, or a heterocyclic group containing nitrogen, and aminoalkyl (meth)acrylamides and zwitterionic monomers.
- 20 25 30 20. The composition according to claim 19, characterized in that the hydrophilic block(s) of the amphiphilic block copolymer comprises polymerised acrylic acid and salts thereof.

21. The composition according to any of claims 1-2,10-11 wherein the hydrophilic block is a polyethylene glycol or a homopolymer or copolymer of acrylic acid, maleic acid, hydroxyethylmethacrylate (HEMA), vinylpyrrolidone (NVP), polyethyleneglycol(meth)acrylate, ethoxypolyethyleneglycol(meth)acrylate,
5 methoxyethyl(meth)acrylate, ethoxy(meth) acrylate, 2-dimethylaminoethyl (meth)acrylate (DMAEMA) and 3-dimethylaminopropylmethacrylamid (DMAPMA).
22. The composition according to any of claims 1-2 characterized in that the
10 amphiphilic block copolymer is an amphiphilic polyurethane block copolymer.
23. The composition according to any of claims 1-22 in the form of foam.
24. A composition according to any of claims 1-23 containing a pharmaceutically active compound, such as an antibacterial agent.
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25. A dressing, e.g. a wound dressing where the skin facing surface and/or the body of the dressing comprises a composition according to any of claims 1-24.
- 20 26. A medical device adapted for being attached to the surface of a living being comprising a pressure sensitive adhesive composition according to any of claims 1-23 at the surface, which is to be attached to the surface of the living being.
27. Use of an adhesive composition according to any of claims 1-23
25 for securing items, such as wound dressings, wound drainage bandages, ostomy, or prostheses to the skin.
28. Use of an adhesive composition according to any of claims 1-23 for sealing around an ostomy.
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29. A medical appliance, e.g. a surgical suture, a catheter or a guidewire, for introduction into a natural or artificial body cavity of a living being, where at least

the part of said appliance to be inserted into said body cavity comprises a composition according to claims 1-23.

30. The medical appliance according to claim 29, which is carrying said
5 composition as a coating at least on its outer surface.

31. The medical appliance according to claim 29, where at least the part of the medical appliance to be inserted into said body cavity is made of said composition.

10 32. The medical appliance according to any of claims 29-31, wherein said composition contains water or an aqueous solution in an amount sufficient to achieve a slippery surface of the composition.

15 33. The medical appliance according to claim 32 wherein the aqueous solution contain an osmolality increasing water-soluble compound.

34. The medical appliance according to claim 31 wherein said aqueous solution contain glycerol.

20 35. An electrically conductive composition comprising a composition according to any of claims 1-22 as well as an aqueous solution of a salt.

25 36. An electrode comprising an electrically conductive member and an electrocoductive composition according to 35 being adapted to be in contact with the surface of a living being.